

Name: \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

Use **elimination** to solve the system of equations:

<p>Top: <math>-x + y = -6</math>  Bottom: <math>-x + 2y = -14</math> <math>(-2, -8)</math></p> <p>Eliminate the x variable: <math>-x + y = -6</math>  <math>-x + 2y = -14</math></p> <p>Add the equations: <math>-y = 8</math></p> <p>Take the opposite: <math>y = -8</math></p> <p><b>Partial Solution:</b> <math>y = -8</math></p> <p>Now substitute 4 for y in both equations:</p> <table border="0"> <tr> <td>Top</td> <td>Bottom</td> </tr> <tr> <td><math>-x + (-8) = -6</math></td> <td><math>-x + 2(-8) = -14</math></td> </tr> <tr> <td><math>-x - 8 = -6</math></td> <td><math>-x - 16 = -14</math></td> </tr> <tr> <td><math>-x = 2</math></td> <td><math>-x = 2</math></td> </tr> <tr> <td><math>x = -2</math></td> <td>for both equations</td> </tr> </table> <p><b>Final Solution</b> <math>(-2, -8)</math></p>	Top	Bottom	$-x + (-8) = -6$	$-x + 2(-8) = -14$	$-x - 8 = -6$	$-x - 16 = -14$	$-x = 2$	$-x = 2$	$x = -2$	for both equations	$\begin{aligned} 2x + 3y &= 18 \\ 5x - y &= 11 \end{aligned}$
Top	Bottom										
$-x + (-8) = -6$	$-x + 2(-8) = -14$										
$-x - 8 = -6$	$-x - 16 = -14$										
$-x = 2$	$-x = 2$										
$x = -2$	for both equations										
$\begin{aligned} 2x + 3y &= 1 \\ 5x + 7y &= 3 \end{aligned}$	$\begin{aligned} 11x + 4y &= -17 \\ -6x + y &= 22 \end{aligned}$										

$$\begin{aligned}2x + 4y &= 0 \\ 3x + y &= 5\end{aligned}$$

$$\begin{aligned}11x + 4y &= -17 \\ -6x + y &= 22\end{aligned}$$

$$\begin{aligned}4x + 3y &= 13 \\ x + y &= 4\end{aligned}$$

$$\begin{aligned}x - y &= 6 \\ 2x - 4y &= 28\end{aligned}$$

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Use **elimination** to solve the system of equations:

$$\begin{aligned}3x - 5y &= -13 \\ 4x + 3y &= 2\end{aligned}$$

$$\begin{aligned}2x + 3y &= 8 \\ 3x + 2y &= 17\end{aligned}$$

$$\begin{aligned}x - 3y &= -1 \\ 2x - 4y &= 2\end{aligned}$$

$$\begin{aligned}-2x + 4y &= 12 \\ 3x - 2y &= -10\end{aligned}$$

$$\begin{aligned}-5x + 2y &= -1 \\ x - y &= 2\end{aligned}$$

$$\begin{aligned}-2x - 3y &= -6 \\ x + 4y &= 8\end{aligned}$$

$$\begin{aligned}2x + 2y &= 4 \\ x + 3y &= 10\end{aligned}$$

$$\begin{aligned}y &= \frac{-1}{2}x + 2 \\ y &= x - 7\end{aligned}$$